

REMARKS

The Office Action mailed on September 27, 2001, (hereinafter referred to as “the Office Action”), stated that, “Heidemann is directed to fiber optic amplifiers and is exemplary” of “the use of an optical filters positioned immediately preceding the photodetector of an optical amplifier system to block pump radiation having passed through the amplifier”, (page 3, lines 18-20). The Office Action further states that, “Heidemann is cited to show the use of filters to remove noise and pass only signals in a optical amplifier system...” (page 4, lines 3-4).

It is respectfully submitted that the Examiner has neglected the significance in where a filter is positioned and from which signal the filter blocks out unnecessary light when detecting the level of an optical input signal.

Heidemann discloses that two pump-light-absorbing filters are provided before and after an erbium-doped (ED) fiber, and shows that only the filter provided after the ED fiber is used to block out pump noise and pass optical lights amplified by the ED fiber to a detector, (column 1, line 67, to column 2, line 5; Fig. 1).

Aida et al. discloses monitoring of an input signal branched at a coupler to control pump power, but is silent on blocking out the unnecessary light when detecting the level of an optical input signal. Aida et al. also fails to indicate the necessity of a filter to be provided before detecting the level of the optical input signal.

As for Applicants’ disclosure of the prior art, only the configuration of Fig. 15 is prior art, but the description in the paragraph on page 4, lines 4-22, of the specification, as well as Fig. 17 explains the Applicants’ analysis for creating the present invention.

As the Examiner has admitted, there is no explicit teaching to combine the references Aida et al. and Heidemann, (page 5, line 17). Further, as the Examiner states, "Innovation in this field has been very fast as can be seen from virtual birth of this field in the 1970s to its present highly complex and sophisticated status", (Office Action, page 4, lines 18-19), but neither Aida et al. nor Heidemann indicates or suggests that an optical filter is provided at the input side of an optical amplifier to pass an optical input signal and ascertain the level of the optical input signal through a detector, as included in the present invention.

Therefore, it is respectfully submitted that the present invention is not unpatentable over Aida et al. when taken with Heidemann, because Heidemann discloses only that a filter is used to absorb pump light in the amplified optical output from the ED fiber, (see column 2, lines 3-4).

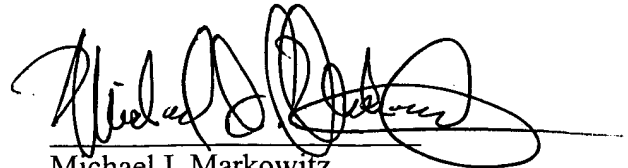
CLOSING

An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above remarks, it is believed that claims 15-19 are in condition for allowance. Passage of this case to allowance is earnestly solicited.

However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper, not fully covered by an enclosed check, may be charged on Deposit Account 50-1290.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael I. Markowitz", written over a horizontal line.

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